

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in this application.

Listing of Claims:

Claim 1 (Currently Amended): A data storage medium, including having an optical information carrier which comprises a polymer carrier (1), which is set up to store information, and, further, as an information storage layer independent of the polymer carrier (1), a layer (2) which comprises a dye and can be optically changed locally for the purpose of storing information,

wherein the information carrier is set up so that a frequency range of a read beam for reading information from the polymer carrier is different from a frequency range of a read beam for reading information from the dye layer.

Claim 2 (Currently Amended): The data storage medium as claimed in claim 1, wherein characterized in that the dye can be at least partly bleached out using by means of a write beam (3).

Claim 3 (Currently Amended): The data storage medium as claimed in claim 1, wherein characterized in that the dye comprises one or more of the substances selected from the following group: cyanines, phthalocyanines.

Claim 4 (Currently Amended): The data storage medium as claimed in claim 1, wherein characterized in that the refractive index of the polymer carrier (1:11) can be changed locally by heating.

Claim 5 (Currently Amended): The data storage medium as claimed in claim 4, wherein characterized in that the polymer carrier (1:11) is assigned an absorber which is set up to

absorb, at least partly, a write beam and to emit the generated heat, at least partly, locally to the polymer carrier (1:11).

Claim 6 (Canceled).

Claim 7 (Currently Amended): A The data storage medium as claimed in claim 1, including an optical information carrier which comprises a polymer carrier, which is set up to store information, and, further, as an information storage layer independent of the polymer carrier, a layer which comprises a dye and can be optically changed locally for the purpose of storing information,

wherein ~~characterized in that~~ the information carrier comprises two or more polymer carrier plies (10) through which information units may be read from a preselected polymer carrier ply (10) and, optionally, written to a preselected polymer carrier ply (10).

Claim 8 (Currently Amended): The data storage medium as claimed in claim 7, further comprising ~~characterized in that there is~~ an adhesion layer (12) between each pair of adjacent polymer carrier plies (10).

Claim 9 (Currently Amended): The data storage medium as claimed in claim 8, wherein ~~characterized in that~~ at least one adhesion layer (12) is set up as a dye layer which can be optically changed locally for the purpose of storing information.

Claim 10 (Currently Amended): The data storage medium as claimed in claim 8, wherein ~~characterized in that~~ the refractive index of the adhesion layer (12) differs only slightly from the refractive index of the polymer carrier (11).

Claim 11 (Currently Amended): The data storage medium as claimed in claim 1, wherein ~~characterized in that~~ the polymer carrier comprises a polymer film (11).

Claim 12 (Currently Amended): A The data storage medium as claimed in claim 11, including an optical information carrier which comprises a polymer carrier, which is set up to

store information, and, further, as an information storage layer independent of the polymer carrier, a layer which comprises a dye and can be optically changed locally for the purpose of storing information, wherein characterized in that the information carrier (11, 12) is wound in a spiral fashion and the polymer carrier comprises a polymer film.

Claim 13 (Currently Amended): The data storage medium as claimed in claim 12, further comprising characterized by an optically transparent winding core which has a recess in its central region.

Claim 14 (Currently Amended): A method of using The use of a data storage medium as claimed in claim 1 6 in a drive which is attuned thereto, the method comprising reading data from the data storage medium using a to it and comprises a read device and, optionally, a write device, the read device which is part of the drive and which is operated operating with a read beam whose frequency range is set up only for reading information from the polymer carrier (1) but not for reading information from the dye layer (2).

Claim 15 (Currently Amended): A method of using The use of a data storage medium as claimed in claim 1 6 in a drive which is attuned thereto, the method comprising reading data from the data storage medium using a to it and comprises a read device (S) and, optionally, a write device (S), the read device which is part of the drive and which is operated (S) operating with read beams whose frequency ranges are set up for reading information from the polymer carrier (11) and for reading information from the dye layer (12).

Claim 16 (Currently Amended): A method of using The use of a data storage medium as claimed in claim 13 in a drive which is attuned thereto, the method comprising reading data from the data storage medium using a to it and comprises a read device (S) and, optionally, a write device (S), the read device which is (S) and the optional write device (S) being arranged in the recess in the central region of the winding core and is being moved relative to the data storage medium (D), while the data storage medium (D) is stationary, for the purpose of reading and/or writing information.

Claim 17 (New): The data storage medium as claimed in claim 7, wherein information units may be written to a preselected polymer carrier ply.

Claim 18 (New): The method as claimed in claim 14, wherein the drive further includes a write device.

Claim 19 (New): The method as claimed in claim 15, wherein the drive further includes a write device.

Claim 20 (New): The method as claimed in claim 16, further comprising:
writing data to the data storage medium using a write device which is arranged in the recess in the central region of the winding core and is moved relative to the data storage medium, while the data storage medium is stationary, for the purpose of writing information.

Claim 21 (New): A method of using a data storage medium as claimed in claim 7 in a drive which is attuned thereto, the method comprising reading data from the data storage medium using a read device which is part of the drive and which is operated with a read beam whose frequency range is set up only for reading information from the polymer carrier but not for reading information from the dye layer.

Claim 22 (New): The method as claimed in claim 21, wherein the drive further includes a write device.

Claim 23 (New): A method of using a data storage medium as claimed in claim 7 in a drive which is attuned thereto, the method comprising reading data from the data storage medium using a read device which is part of the drive and which is operated with read beams whose frequency ranges are set up for reading information from the polymer carrier and for reading information from the dye layer.

Claim 24 (New): The method as claimed in claim 23, wherein the drive further includes a write device.

Claim 25 (New): A method of using a data storage medium as claimed in claim 12 in a drive which is attuned thereto, the method comprising reading data from the data storage medium using a read device which is part of the drive and which is operated with a read beam whose frequency range is set up only for reading information from the polymer carrier but not for reading information from the dye layer.

Claim 26 (New): The method as claimed in claim 25, wherein the drive further includes a write device.

Claim 27 (New): A method of using a data storage medium as claimed in claim 12 in a drive which is attuned thereto, the method comprising reading data from the data storage medium using a read device which is part of the drive and which is operated with read beams whose frequency ranges are set up for reading information from the polymer carrier and for reading information from the dye layer.

Claim 28 (New): The method as claimed in claim 27, wherein the drive further includes a write device.

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Application No. 10/030,472

Response to Office Action dated October 14, 2004

Amendment to the Title:

Please change the title of the application to
DATA STORAGE MEDIUM INCLUDING OPTICAL INFORMATION CARRIER

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